ABSTRACT OF THE DISCLOSURE

A method and apparatus for computing a convolution between an input GPS signal and a C/A code reference by generating the convolution result in real time without storing unprocessed signal samples. The apparatus comprises a vector multiplier running at high speed to achieve the same result as a vector multiplier sized to process an entire epoch. Additionally, the input samples to, and the output samples of, the vector multiplier can be quantized to reduced circuit complexity.